

SiteManager **Training Manual**



Module F
Chapter 4

Materials Management
Mix Design

Section F-4-2-3
Viewing a SUPERPAVE Mix Design

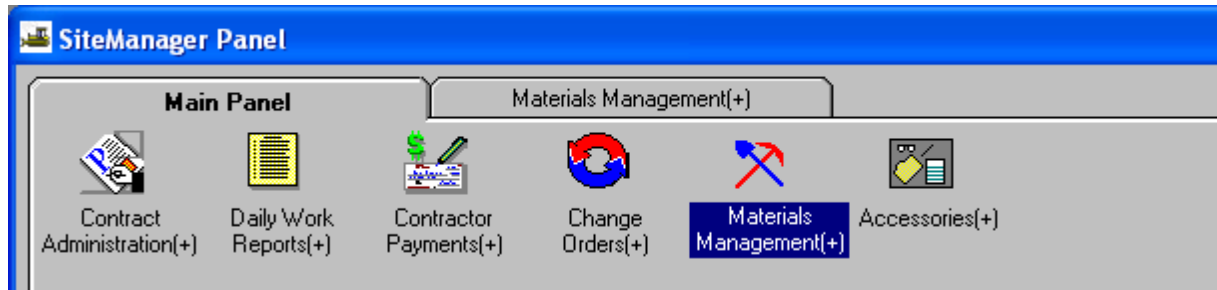
Student's Version

Indiana Department of Transportation
November 2007 Version 3.7b

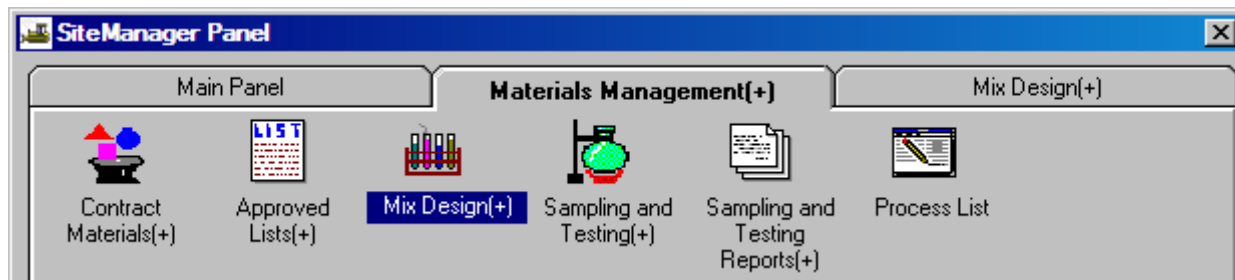
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Viewing a SUPERPAVE Mix Design

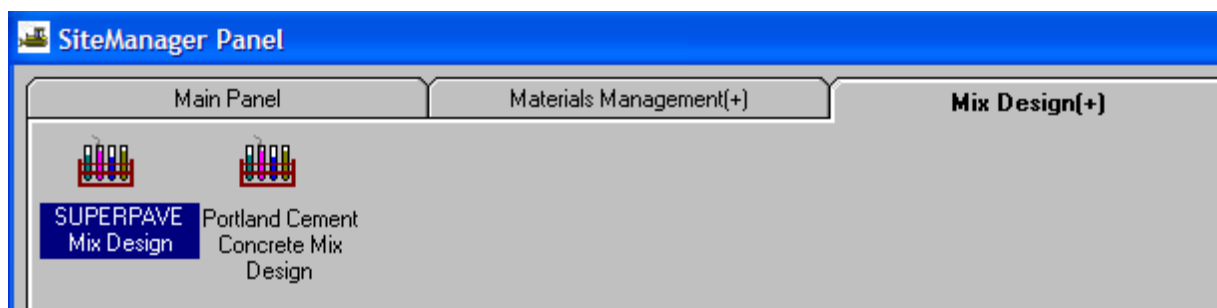
This document will explain how to view **SUPERPAVE Mix Design** information.



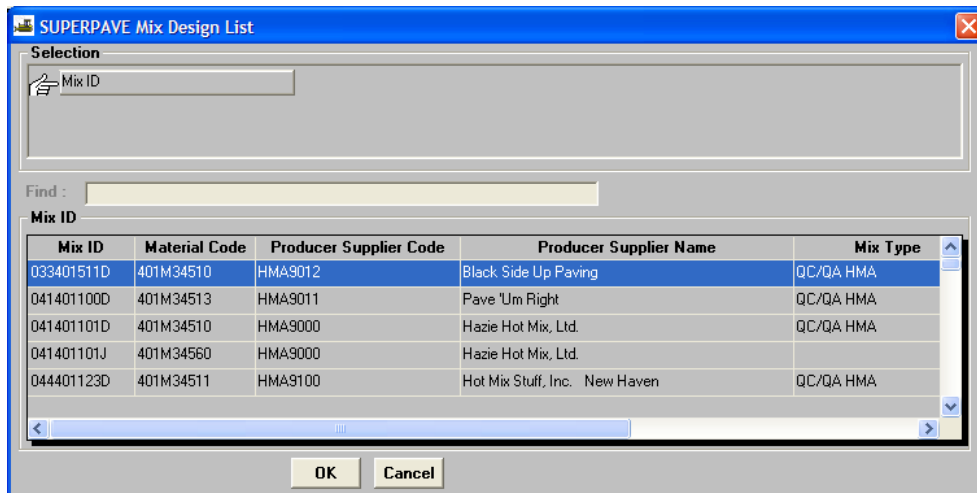
“Double-click” on the **Materials Management** icon located on the Main Panel.



“Double-click” on **Mix Design**.



“Double-click” on **SUPERPAVE Mix Design**.



Use the Scroll or Find/Filter/Sort technique to locate the appropriate **Mix ID**.

“Double-click” on the appropriate **Mix ID**.

Description tab

The **Description** tab includes general information about the mix design.

The screenshot shows the 'AASHTO SiteManager' application window with the 'SUPERPAVE Mix Design Description' tab selected. The 'Description' sub-tab is active, displaying a form with the following fields and values:

Mix ID:	033401511D	
Material Code:	401M34510	QC/QA HMA 25.0mm (1 in) Base, Cat 1
Producer Supplier Code:	HMA9012	Black Side Up Paving
Designer Name:	Richard Dryfus	
Asphalt Type:	PG 58 - 28	
Mix Type:	QC/QA HMA	
Submitted Date:	01/06/05	Termination Date: 12/31/05
Approved Date:	01/27/05	Approved By User ID: d90iques

The 'INDOT' logo is visible in the bottom right corner of the form.

Mix ID: the **Mix ID** is a unique number that identifies the SUPERPAVE mix design. The current numbering system will be utilized in the yydsss123X format.

Example: 041402123D

- **yydsss123X** The first two digits (yy) are the last two digits of the year the mix design is submitted.
- **yydsss123X** The third digit represents the district the mix design was submitted.
- **yydsss123X** The fourth, fifth, and sixth digits are numbers representing the specification reference for the mix design
- **yydsss123X** The seventh, eighth and ninth digits are numbers assigned by the district.
- **yydsss123X** The last digit is used to designate Design Mix Formula/Job Mix Formula (DMF)/(JMF),
 - an D represents the DMF
 - an J represents the JMF after the adjustment period.

The screenshot shows the AASHTO SiteManager application window. The title bar reads 'AASHTO SiteManager'. The menu bar includes 'File', 'Edit', 'Services', 'Window', and 'Help'. Below the menu bar is a toolbar with various icons. The main window is titled 'SUPERPAVE Mix Design Description' and has four tabs: 'Description', 'Properties', 'Materials', and 'Gradations'. The 'Description' tab is active. The form contains the following fields:

Mix ID:	033401511D
Material Code:	401M34510
Material Name:	QC/QA HMA 25.0mm (1 in) Base, Cat 1
Producer Supplier Code:	HMA9012
Producer/Supplier Name:	Black Side Up Paving
Designer Name:	Richard Dryfus
Asphalt Type:	PG 58 - 28
Mix Type:	QC/QA HMA
Submitted Date:	01/06/05
Termination Date:	12/31/05
Approved Date:	01/27/05
Approved By User ID:	d90iques
Agency:	INDOT

Material Code: The **Material Code** represents the material associated to the mix design. The material name is displayed in the field located to the right of the **Material Code** field.

Producer Supplier Code: The **Producer Supplier Code** represents the facility where the mix design mixture will be produced. The Producer/Supplier's name and location is displayed in the field located to the right of the **Producer Supplier Code** field.

Designer Name: The **Designer Name** is the individual or mix design lab that created the mix design.

Asphalt Type: The **Asphalt Type** identifies the asphalt material utilized in the mix design.

Mix Type: The **Mix Type** identifies the topic of the specification used to develop the mix design.

Submitted Date: The **Submitted Date** is the date the mix design was submitted to the district.

Termination Date:

- DMF: the **Termination Date** is the date the DMF shall no longer be used. The field shall remain 00/00/00 until the JMF is approved.
- JMF: the **Termination Date** is the date the JMF shall no longer be used without additional review.

AASHTO SiteManager
File Edit Services Window Help

SUPERPAVE Mix Design Description
Description Properties Materials Gradations

Mix ID: 033401511D

Material Code: 401M34510 QC/QA HMA 25.0mm (1 in) Base, Cat 1

Producer Supplier Code: HMA9012 Black Side Up Paving

Designer Name: Richard Dryfus

Asphalt Type: PG 58 - 28

Mix Type: QC/QA HMA

Submitted Date: 01/06/05 Termination Date: 12/31/05

Approved Date: 01/27/05 Approved By User ID: d90iques **INDOT**

Approved Date: The **Approved Date** is the date when the mix design is approved.

Approved By User ID: The **Approved By User ID** is populated with the user ID of the individual who approves the mix design.

AASHTO SiteManager
File Edit Services Window Help

SUPERPAVE Mix Design Description
Description Properties Materials Gradations

Mix ID: 033401511D

Material Code: 401M34510 QC/QA HMA 25.0mm (1 in) Base, Cat 1

Producer Supplier Code: HMA9012 Black Side Up Paving

Designer Name: Richard Dryfus


Asphalt Type: PG 58 - 28

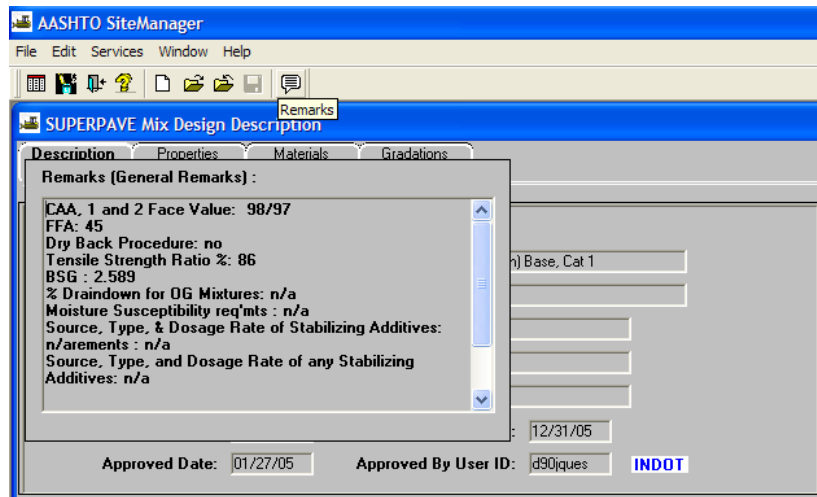
Mix Type: QC/QA HMA


Submitted Date: 01/06/05 Termination Date: 12/31/05

Approved Date: 01/27/05 Approved By User ID: d90iques **INDOT**

Additional information about the mix design can be viewed when the **Remarks**  balloon contains lines.

“Click” on the **Remarks**  button located on the toolbar.



After viewing the information, “click” on the **Remarks**  button located on the toolbar to close the **Remarks (General Remarks)** panel.

Properties tab

The **Properties** tab includes the material properties of the mix design.

The screenshot shows the 'SUPERPAVE Mix Design Properties' window in AASHTO SiteManager. The 'Properties' tab is selected. The 'Mix ID' is 033401511D. The 'Gyrations @ N des' is 95. The 'Binder Content ITM #' is 586. The 'Ignition Oven Test Temperature' is 427. The 'Absorption Factor' is 0.2. The 'Maximum Particle Size' is 37.5. The 'Equiv Single Axle Loads' is Category 2, 300,000 to < 3,000,000. The 'Results Recorded @ N (Design)' section includes: Optimum Asphalt Content (4.2), VMA % (12.6), Air Voids % (4), Maximum Specific Gravity (2.589), Minimum Mixing Temperature (280 Fahrenheit), Maximum Mixing Temperature (320 Fahrenheit), Lab Compaction Temperature (275 Fahrenheit), Dust/Calculated Effective Binder Ratio (1.4), VFA % (68.0), Sand Equivalent (91), and MAF (155.1). The 'INDOT' logo is visible in the bottom right corner.

“Click” on the **Properties** tab.

Gyrations @ N des: **Gyrations @ N des** is the number of gyrations at N design.

Binder Content ITM#: **Binder Content ITM #** identifies the ITM test method utilized when the binder content for the mix design is determined.

Ignition Oven Test Temperature: The **Ignition Oven Test Temperature** is the temperature at which the ignition oven shall be set to perform ITM586.

Absorption Factor: The **Absorption Factor** is the absorption value of the aggregate in the mixture.

Maximum Particle Size: The **Maximum Particle Size** represents the maximum particle size for the total blended aggregate in the mixture.

Equiv Single Axle Loads: **Equiv Single Axle Loads** is the ESAL value for the mix design.

Optimum Asphalt Content: **Optimum Asphalt Content** is the asphalt content determined in accordance with the identified test method for the mix design.

SUPERPAVE Mix Design Properties	
Description	Properties
Mix ID	033401511D
Gyrations @ N des:	95
Ignition Oven Test Temperature:	427
Maximum Particle Size:	37.5
Equiv Single Axle Loads:	Category 2, 300,000 to < 3,000,000
Binder Content ITM #:	586
Absorption Factor:	0.2
Results Recorded @ N (Design)	
Optimum Asphalt Content:	4.2
VMA %:	12.6
Air Voids %:	4
Maximum Specific Gravity:	2.589
Minimum Mixing Temperature:	280 Fahrenheit
Maximum Mixing Temperature:	320 Fahrenheit
Lab Compaction Temperature:	275 Fahrenheit
Dust/Calculated Effective Binder Ratio:	1.4
VFA %:	68.0
Sand Equivalent:	91
MAF:	155.1
INDOT	

Dust/Calculated Effective Binder Ratio: Dust/Calculated Effective Binder Ratio is the ratio of dust to the calculated effective binder content for the mixture.

VMA %: VMA % is the percent of voids in the mineral aggregate.

VFA %: VFA % is the percent of voids filled with asphalt.

Air Voids %: Air Voids % is the percent of target air voids established by the mix design.

Sand Equivalent: Sand Equivalent is the value that represents the fine material that acts like a liquid.

Maximum Specific Gravity: Maximum Specific Gravity is the specific gravity of the loose mixture of the mix design.

MAF: MAF is the mix adjustment factor as applied to the pay quantities and material yield rate.

Minimum Mixing Temperature: Minimum Mixing Temperature is the minimum temperature at which the mixture shall be produced.

Maximum Mixing Temperature: Maximum Mixing Temperature is the maximum temperature at which the mixture is to be produced.

Lab Compaction Temperature: Lab Compaction Temperature is the required temperature of the mixture when the gyratory specimen is being prepared.

Materials tab

The **Materials** tab is where individual materials and their properties that are associated to the mix design can be viewed.

Material Code	Material Full Name	Producer Supplier Code	Producer Supplier Name
902M00020	Binder, PG 58-28	ASPH7000	In A Bind Asphalt, Inc. Markle
904M00270	CA, Class AP, CGvl, 11	Q009015	Rock Quarries, Inc
904M00280	CA, Class AP, CGvl, 12	Q009015	Rock Quarries, Inc
904M06030	FA, NS, 24	Q009014	Independent Gravel Co.
904M06130	FA, SF, 24	Q009014	Independent Gravel Co.

Material Code:	902M00020	Binder, PG 58-28
Producer Supplier Code:	ASPH7000	In A Bind Asphalt, Inc. Markle
Brand Name/Ledges:	PG 58-28	INDOT
Blend Percent:	3.6	Sample ID:
Specific Gravity (Apparent):		Specific Gravity (Bulk):

“Click” on the **Materials** tab.

“Click” on the material to be viewed located in the **Material Full Name** column of the top panel.

The information in the bottom panel reflects information for the highlighted material located in the top panel.

Material Code: **Material Code** is the code that identifies the individual materials that make up the SUPERPAVE mix design. The material name is displayed in the field located to the right of the **Material Code** field.

Producers Supplier Code: **Producers Supplier Code** is the facility where the mix design material originates. The Producer/Supplier’s name is displayed in the field located to the right of the **Producer Supplier Code** field.

SUPERPAVE Mix Design Materials

Description Properties **Materials** Gradations

Mix ID 033401511D

Material Code	Material Full Name	Producer Supplier Code	Producer Supplier Name
902M00020	Binder, PG 58-28	ASPH7000	In A Bind Asphalt, Inc. Markle
904M00270	CA, Class AP, CGvl, 11	Q009015	Rock Quarries, Inc
904M00280	CA, Class AP, CGvl, 12	Q009015	Rock Quarries, Inc
904M06030	FA, NS, 24	Q009014	Independent Gravel Co.
904M06130	FA, SF, 24	Q009014	Independent Gravel Co.

Material Code: 902M00020 Binder, PG 58-28

Producer Supplier Code: ASPH7000 In A Bind Asphalt, Inc. Markle

Brand Name/Ledges: PG 58-28 **INDOT**

Blend Percent: 3.6 Sample ID:

Specific Gravity (Apparent): Specific Gravity (Bulk):

Brand Name/Ledges:

- **Brand Name:** **Brand Name** is the individual material's name from the approved material list and is used for anti strip agent, fibers or any other special materials.
- **Ledges:** **Ledges** are the ledges from the aggregate source.

Blend Percent: **Blend Percent** is the individual material's percentage of the total SUPERPAVE mixture.

Sample ID: **Sample ID** is the ID of the Point of Use or Verification Testing test results.

Specific Gravity (Apparent): **Specific Gravity (Apparent)** is the Apparent Specific Gravity of the individual material.

Specific Gravity (Bulk): **Specific Gravity (Bulk)** is the bulk specific gravity of the individual material.

“Click” on the next material to be viewed located in the **Material Full Name** column of the top panel.

The **Gradations** tab will not be utilized by INDOT.

Viewing a SUPERPAVE Mix Design

F-4-2-3 Group Exercise

In the following exercise, you will view information for a SUPERPAVE Mix Design.

Log into SiteManager as inquire
Password pass

Navigation from **Main Panel:**

Double-click: **Materials Management (+)** icon

Double-click: **Mix Design (+)** icon

Double-click: **SUPERPAVE Mix Design** icon

Click the **Open** button

Mix ID: Select 056401501J

Properties tab: What is the optimum asphalt Content?

Answer: 5.9

Materials tab: What is the blend Percent of CA, Class AP, CGv1, 12?

Answer: 16